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INFOGUIDE: Talking Paper No. 28 -- "The Bomb in Spain"

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NOTE: Do not volunteer the information in the Talking Paper below. Use it only if you are asked, and as local circumstances require.

THE BOMB IN SPAIN

(1) QUESTION: Have you lost a nuclear bomb?

ANSWER: There were several unarmed nuclear weapons aboard the U. S. B-52 bomber which crashed January 17, 1966, at Palomares in Spain. One of those weapons has not yet been located.

(2) QUESTION: How many bombs were involved in all?

ANSWER: Four.

(3) QUESTION: Were they nuclear or thermonuclear weapons?

ANSWER: Thermonuclear.

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(4) QUESTION: Did any of them explode?

ANSWER: If you mean whether there was a nuclear explosion, the answer is emphatically no. Two of the weapons experienced nonnuclear, TNT-type explosions on impact with the ground. This resulted in the scattering of plutonium (PU-239) and uranium (U-235) in a small area in the immediate vicinity of impact -- at most, 100 or 150 feet around the impact point.

Drafted by: IOP:JOHanson:fls 3/4/66

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(5) QUESTION: Will the missing bomb go off? Will it cause radioactive contamination?

ANSWER: Again, the answer to both questions, emphatically, is -- no.

There is no reason for concern, either about a nuclear explosion or radioactivity. U. S. nuclear weapons contain safeguards designed expressly to prevent an accidental nuclear explosion. We have had no such explosion during our 20 years of handling nuclear weapons. Radioactivity from the missing weapon would pose no threat, even if the weapon broke up and some of the nuclear material were scattered. U. S. and Spanish scientists have determined that no health hazard exists as a result of the January 1966 accident.

(6) QUESTION: If it is so safe, why are you hunting for the lost bomb?

ANSWER: To recover the bomb, the design of which is highly classified; to recover other classified material, and also debris from the wreckage which may help analyze causes of the crash.

(7) QUESTION: Is this the first crash of an aircraft with nuclear weapons aboard?

ANSWER: No, there have been others -- and none has resulted in a nuclear explosion.

The safety record of the U. S. nuclear weapons program has been exceptional in two ways: (a) accidents have been very few; (b) accidents with nuclear explosions have never happened, because highly reliable safety features have been designed into every weapon. The result has been a weapon so safe that accidental nuclear explosion is precluded even when the weapon is struck, dropped from great heights, or subjected to fire. The most that has ever happened -- and it happened in the crash in Spain -- is that a small part of the nuclear material in a bomb has been scattered over a small area. This material produces alpha radiation -- rays of very short range which cannot pierce skin, hence pose no threat of "external radiation" (from outside the body) as do rays from a nuclear explosion.

(8) QUESTION: When and where were the previous crashes with nuclear weapons aboard?

ANSWER: There

ANSWER: There have been several such accidents since 1958, all publicly announced by the U. S.

(9) QUESTION: What about the plutonium which was scattered when the bomb broke up in Spain? Isn't that terribly radioactive?

ANSWER: Contrary to popular impression, alpha rays from plutonium cannot even penetrate the skin. Plutonium is a man-made element and its properties are very well known. In the form used in weapons it is a heavy, dark brown or black metal similar to lead. Alpha rays extend only a few centimeters in air and are stopped by any solid, such as tissue paper or skin, and plutonium can be safely held in the hand. There is thus no hazard from plutonium outside the body.

It can be swallowed in small quantities with negligible hazard, since in weapons grade it is virtually insoluable and almost all of it quickly passes on out of the body.

Taken into the lungs in large quantities, it can cause a hazard. However, plutonium scattering experiments in Nevada since 1957 showed that even if a person standing in a cloud of plutonium dust inhaled the material, it would result in a radiation dose to the lungs that is only about half the yearly amount permitted for all organs in the body of a U. S. atomic industry worker. This permissible dose level is prescribed in standards issued by the International Commission on Radiation Protection, a group of scientists from a number of countries.

The Nevada experiments tell us that hazardous levels of inhalation did not exist in Spain and are unlikely to exist in similar accidents. Spanish and U. S. scientists have explored all possibilities of risk to health and they are convinced no health hazard occurred in this case.

The properties of uranium, which was also present in the accident in Spain, are similar but even less potent. Metallic plutonium and uranium of the types used in weapons are completely different from "fission products" -- the products of a nuclear explosion or reaction -- which pose an external health hazard (from outside the body). The weapons materials are very heavy. Fragments settle to earth or sink in water rapidly, within a very limited area. If there were particles small enough to be suspended in water, they would soon be dispersed.

(10) QUESTION:

(10) QUESTION: If plutonium and uranium are so safe, why did you make radiological surveys and buy up crops and farm animals in Spain, and why are you removing soil?

ANSWER: Such measures are part of the standard, planned-in-advance emergency procedures in any accident involving nuclear armament. They are intended to go to the point of absolute assurance -- to take extra precautions on the safe side. U. S. standards are based on "lifetime" exposures. This means that if a certain amount of radioactive material might be dangerous to a man living in it or working with it for a lifetime, we clean up and correct those conditions with a very large margin of safety in every case.

(11) QUESTION: How do you know that the tomatoes, meat, and milk from the farms in the area of impact in Spain are not contaminated?

ANSWER: We know this definitely, from repeated surveys made by leading Spanish and American scientists at the site. All produce which could conceivably have been affected has been disposed of. The remainder shows no trace of radioactive material. There is no hazard whatever from consuming those farm products. In fact, Spaniards and Americans at the site have been eating them regularly, and the farmers have been moving their products to market again for some time.

(12) QUESTION: What about the ocean water -- and the fish?

ANSWER: Tests conducted on the sea water by U. S. scientists have failed to detect the slightest sign of radioactivity from this accident. Even if some small amount of the nuclear material were released into the water, it would form an insoluble compound that is heavy, and thus would sink to the bottom. Any particles small enough to be suspended in the water would be greatly dispersed and diluted amid masses of sea water, and hence would represent no health hazard.

Tests on fish in the area have also been entirely negative -- no radioactivity. This too is natural, since fish would not be likely to ingest the particles as food any more than they would pieces of iron. If a fish should accidentally swallow a particle, it would leave the body of the fish by natural elimination. Any material passing into its system through the gills would not affect the flesh of a fish, and scientists agree that no harmful amount would remain. Thus eating fish caught in the area would not be a health hazard.

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(13) QUESTION: Was the accident in Spain a violation of the test ban treaty, as the Soviet Union has charged?

ANSWER: Of course not. This is far-fetched, even for a Soviet propagandist. The test ban treaty prohibits "any nuclear weapon test explosion, or any other nuclear explosion..." Since no nuclear explosion occurred in the Palomares incident, there was no treaty violation.

(14) QUESTION: What about Soviet charges that the accident in Spain violated the 1958 "open sea convention," prohibiting contamination of the oceans with radioactive materials?

ANSWER: Again, propaganda without foundation. Not only was there no contamination of the ocean, as I have already pointed out (Question No. 9), but that treaty bears no relation at all to the crash. The article of the treaty from which the Soviets quoted out of context deals with (a) "the dumping of radioactive waste" and (b) cooperation with international organizations to prevent pollution.

(15) QUESTION: Why do you endanger people by carrying nuclear weapons around in aircraft?

ANSWER: No one has been endangered, and the U. S. precautions and safeguards against an accidental explosion have proven completely effective. Our flights are a function of the United States nuclear deterrent force, strongest in the world, which has helped prevent nuclear war or world war for the past 20 years.

The U. S. force is constantly in readiness to protect our own people and all the people in countries allied with us. The main essential in preventing war is to be prepared, so U. S. missiles, planes, submarines, guns and men are ever ready. The result is that aggression can be deterred and war prevented in cases such as the Cuban missile crisis in 1962, when the Soviet Union tried to sneak nuclear missiles into Cuba as an aggressive threat to the U. S. American superior strength, preparedness, resolve and restraint forced the Soviets to withdraw their missiles.

(16) QUESTION: Do you overfly my country with nuclear weapons?

ANSWER: For

ANSWER: For reasons of military security I cannot comment on this question. However, the people of all countries can be assured that the U. S. will never relax its concern with nuclear safety.

(17) QUESTION: Doesn't flying around with nuclear weapons increase the chance of war by accident or misunderstanding?

ANSWER: Quite the contrary. As I have explained (Question No. 15), airborne nuclear weapons are an important part of the U. S. nuclear war-preventive deterrent. In addition to its successful program to avoid accidental nuclear explosions, the U. S. is the pioneer and foremost practitioner of devices and procedures to prevent outbreak of war by misunderstanding.

President Johnson disclosed some specifics in September 1964:

"We have worked consistently to bring nuclear weapons under careful control and to lessen the danger of nuclear conflicts, and this policy has been the policy of the United States of America for 19 years now, under both Democratic and Republican administrations....The release of nuclear weapons would come by Presidential decision alone. Complex codes and electronic devices prevent any unauthorized action. Every further step along the way from decision to destruction is governed by the two-man rule. Two or more men must act independently and must decide the order has been given. An elaborate system of checks and counterchecks, procedural and mechanical, guard against any unauthorized nuclear bursts. In addition, since 1961 we have placed permissive-action links on several of our weapons. These are electromechanical locks which must be opened by secret combination before action at all is possible, and we are extending this system."

One of the checks to which the President referred is the well-known command control system, through which U. S. aircraft cannot proceed beyond a certain point without a positive, unmistakable command originating at the highest level of government. This "fail-safe" system has worked without flaw since its inception over a decade ago. Similar systems keep all U. S. nuclear deterrent systems under constant control -- including land-based and submarine-based long-range missiles. In addition to its own independent measures, the U. S. suggested and urged adoption of one quick method to reduce the risk of international misunderstandings in crises -- the "hot line" -- a constantly manned direct teletype link which was installed between Washington and Moscow in 1963.

(18) QUESTION

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(18) QUESTION: Do the Soviets overfly other countries with nuclear weapons?

ANSWER: You should ask them. They have given us no information about the safety features of their weapons.

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